

CLAIMS:

1. A system for removably connecting a circuit card to a connector of an electronic device, comprising a support structure for loading a circuit card into an electronic device, said circuit card being supported by said support structure and displaceable relative thereto, said support structure being adapted to be slidably inserted along a first axis within the electronic device to a first position, and an actuator operational to selectively displace the circuit card along a second axis from said first position to a connection position where a connection portion of the circuit card is operatively coupled to the connector of the electronic device, and from said connection position to a disconnection position wherein the connection portion of the circuit card is disengaged from the associated connector of the electronic device.

2. A system as defined in claim 1, wherein in said first position, the connection portion of the circuit card is in register with the associated connector of the electronic device.

3. A system as defined in claim 2, wherein said second axis is orthogonal to said first axis.

4. A system as defined in claim 3, wherein said actuator is effective for displacing said circuit card in a plane which is parallel to a loading plane of said circuit card within said electronic device.

5. A system as defined in claim 1, wherein said support structure includes a sliding member and

an intermediate member movably mounted to said sliding member, the circuit card being mounted for conjoint movement with said intermediate member in response to the activation of said actuator.

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6. A system as defined in claim 5, wherein said intermediate member is mounted to a mounting surface of said sliding member for parallel movements with respect thereto.

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7. A system as defined in claim 6, wherein said sliding member includes a guiding edge extending along an axis perpendicular to a direction of motion of said intermediate member relative to said sliding member.

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8. A system as defined in claim 7, wherein retaining means secured to said sliding member are constrained to move in slotted guides defined in said intermediate member, thereby retaining said intermediate and sliding members together while allowing relative movements therebetween.

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9. A system as defined in claim 8, wherein said slotted guides linearly extend in a direction perpendicular to said guiding edge.

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10. A system as defined in claim 9, wherein a sliding membrane is disposed between said intermediate member and said sliding member.

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11. A system as defined in claim 10, wherein said actuator includes a lever pivotally mounted to said sliding member, said lever defining a slot configured to receive a transmission member secured to said intermediate member for imparting movement to

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said intermediate member relative to said sliding member in response to pivotal movement of said lever.

Sub 33 12. A system as defined in claim 5, wherein said sliding and intermediate members are made in the form of plates.

10 13. A method of connecting a circuit card to an associated connector of a substrate, comprising the steps of: mounting the circuit card to a support structure, guiding said support structure with said circuit card mounted thereon in a first direction along a card path to a first position relative to said substrate, and displacing said circuit card from said first position to a connection position, wherein the card connector of the circuit card is operatively coupled to the associated connector of the substrate.

Sub 20 14. A method as defined in claim 13, wherein in said first position the card connector of the circuit card is in register with the associated connector of the substrate.

25 15. A method as defined in claim 14, wherein said second direction is orthogonal to said card path.

30 16. A method as defined in claim 15, wherein the step of guiding said support structure to said first position is effected by slidably engaging at least one guiding edge of said support structure into at least one corresponding track channel disposed on said substrate.

35 17. A method as defined in claim 13, wherein the step of displacing the circuit card from the

first position to the connection position is effected by imparting a movement to an intermediate member movably mounted to a guide member configured to guide said supporting structure along said card path, the circuit card being mounted to the intermediate member for conjoint movement therewith.

18. A method as defined in claim 17, wherein said circuit card is displaced from said first position to said connection position through the operation of a lever pivotally mounted to said guide member and defining a slot in which a transmission member secured to said intermediate member is constrained to move.

19. A method as defined in claim 13, wherein said substrate is a motherboard of an electronic device.

20. A support structure for connecting a circuit card to an electronic device, comprising a sliding member adapted to be slidably inserted within an electronic device, a mounting member movably mounted to said sliding member, said mounting member being adapted to support the circuit card, and an actuator effective for causing conjoint movement of said mounting member and the circuit card relative to said sliding member, whereby said sliding member can be slidably displaced along an insertion path to direct the support structure to a first position from which the circuit card is displaced, by operation of said actuator, to a connection position where the circuit card is operatively coupled to the electronic device.

21. A support structure as defined in claim 20,
wherein said mounting member is mounted to a mounting
surface of said sliding member for parallel movements
with respect thereto.

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22. A support structure as defined in claim 21,
wherein said sliding member includes at least one
guiding edge extending along an axis perpendicular to
a direction of motion of said mounting member
relative to said sliding member.

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23. A support structure as defined in claim 22,
wherein retaining means secured to said sliding
member are constrained to move in slotted guides
defined in said mounting member, thereby retaining
said mounting and sliding members together while
allowing relative movements therebetween.

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24. A support structure as defined in claim 20,
wherein said actuator includes a lever pivotally
mounted to said sliding member, said lever defining a
slot configured to receive a transmission member
secured to said mounting member for imparting
movement to said mounting member relative to said
sliding member in response to pivotal movement of
said lever.

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25. A support structure as defined in claim 21,
wherein said actuator includes a lever pivotally
mounted to said sliding member, said lever defining a
slot configured to receive a transmission member
secured to said mounting member for imparting
movement to said mounting member relative to said
sliding member in response to pivotal movement of
said lever.

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